Sarcophagous Habits of Trichoptera Larvae on Dead Fish [1, 2]

Merlyn A. Brusven [3] and Allen C. Scoggan [3]

Available information concerning the feeding habits of Trichoptera larvae is largely fragmentary and general. Lloyd (1921) reported the larvae of Trichoptera were principally herbivorous with some members becoming carnivorous or cannibalistic when confined. From gut analyses

Fig. 1. Aggregations of Trichoptera larvae around the pectoral fins, anus and tail region.

examinations, Jones (1950) reported *Anabolia* and *Halesus* larvae (Limnephilidae) were largely herbivorous. Slack (1936) indicated the food habits of several species of Trichoptera ranged from herbivorous to omnivorous; they sometimes ingested insects and on one occasion caught and ate a small live fish. Ross (1944) and Chapman and Demory (1963) also re-

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[3] Department of Entomology, University of Idaho, Moscow, Idaho 83843.

ported omnivorous feeding by trichopteran larvae, but acknowledged differences among genera and species.

Squawfish, *Ptychocheilus oregonensis* (Richardson), eradication by means of a selective fish toxicant on a portion of the St. Joe River in northern Idaho in July, 1968, resulted in mass kill of this undesirable fish. Many of the dead and dying squawfish came to rest in the deeper holes, among rocks and debris, and in slack waters. A high incidence of feeding by trichopteran larvae was noted during a 24 hour period following initial squawfish mortality.

FIG. 2. Visceral protrusion caused from feeding by Trichoptera larvae.

Dicosmoecus and *Psychoglypha* larvae (Limnephilidae) were the principal feeders on dead squawfish; however, *Lepidostoma* larvae (Lepidostomatidae) were also observed feeding but occurred in smaller numbers. Six to ten inch squawfish had an average of 50 larvae, particularly on fish coming to rest in slow, shallow waters along the margins of the river (Fig. 1). Fish lodged in the main channel where the current was fast had few or no larvae. Initial feeding occurred principally around the pectoral fins, anus and tail region; largest concentrations occurred at the base of the tail. Openings into the body cavity causing visceral protrusions were

noted within 24 hours after squawfish had died (Fig. 2). The larvae maintained a loose attachment to the fish during feeding; if the fish were moved or removed from the water many would drop off. Since large numbers of larvae were observed feeding on fish only a few hours after the fish had succumbed, it would suggest that they were endowed with certain sensory receptors for finding these fish.

The authors submit that trichopteran larvae contributed directly and indirectly to the removal of dead squawfish from the St. Joe River. Working in conjunction with other organisms of decay they hastened the return of the aesthetic condition of the river.

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(The Entomologists' Record, continued from p. 102)

Contact with amateur societies can result in at least two benefits, and probably more. It could result in the wider dissemination of professional literature, including journals. Much of the information currently available for the beginners is so vague that it is of little value. The use of professional information will tend to improve the amateur studies. The demand for such publications should in turn help encourage the publication of more intermediate aids to bridge the gap between the "trade" books and "professional" literature.

It is our belief that awareness of the true nature of the field will improve the situation rather than flood us with "bug swappers."—R. H. A.